

Remarks

Reconsideration of the present application, as amended, is respectfully requested.

Of previously pending claims 1-12, all were rejected.

Claims 1-6 were rejected under 35 U.S.C. §112, second paragraph, for indefiniteness. Specifically, the limitation, “their first and second limitation” in line 14 of claim 1 was found to have insufficient antecedent basis because “the claim fails to positively recite that the first and second opto-electric converters each have a first and second terminal.” Claim 1 has been amended to clarify this misunderstanding.

Independent claims 1 and 7 were rejected under 35 USC §103(a) as being obvious over the previously cited Henmi patent, U.S. Patent No. 6,137,603, in view of the Yamane patent, U.S. Patent No. 5,434,691. In response to the applicant’s amended claims and arguments, the Examiner maintained the rejection of the claims. With regard to claim 1, the Examiner stated, “...each opto-electric converter generating an output signal carrying light signal power information (inherent in the received signal) and a supervisory channel on a monitor output terminal (e.g. the "intensity modulated light with a wavelength different from that of the main signal" of column 1 lines 26- 44; the output of the opto-electric converter of Henmi also outputting the supervisory channel), an electronic switch having two signal input terminals (1072, fig. 2 and col. 1, lines 35-37) and a signal output terminal (fig. 2), the two optoelectric converters connected with their first and second output terminals to the two signal input terminals of the electronic switch (outputs of optoelectric converters 1052 and 1053 are connected to the input of the electrical switch 1072).”

The reasoning quoted above is incomplete. The applicant’s “monitor output terminal” has not been identified. Claim 1 recites, “...first and second optoelectric converters for converting received optical signals to electric signals and each having an optical input terminal and an output terminal...each optoelectric converter generating an output signal carrying light signal power information and a supervisory channel on a monitor output terminal...” From this language each optoelectric converter has an optical input terminal, an output terminal and a monitor output terminal. In Henmi’s Fig. 2, to which the Examiner refers, the first and second

optoelectric converters 1052 and 1053 which the Examiner has identified with the applicant's optoelectric converters each has only two terminals. Claim 1 is not obvious over the cited Henmi and Yamane patents.

This discrepancy is even more evident in independent claim 7 which recites, "...the two optoelectric converters each generating an output signal carrying light signal power information and a supervisory channel on their monitor output terminals and having their output terminals carrying the electric signals converted from the received optical signals connected to the two signal input terminals of the electronic switch..." In rejecting claim 7, the Examiner referred back to the rejection of claim 1 and Henmi Fig. 2. As pointed out in the previous paragraph, the optoelectric converters 1052 and 1053 of Fig. 2 each has only two terminals. Nowhere is there described a monitor output terminal. Hence the combination of the Henmi and Yamane patents does not render claim 7 obvious.

Dependent claims 2-6 and 8-12 should be allowable for at least being dependent upon allowable base claims. Furthermore, at least some, if not all, of the dependent claims should be allowable in their own right. While dependent claims 2-6 and 8-12 were rejected under 35 USC §103(a) as being obvious over the cited Henmi patent in view of the cited Yamane patent and further in view of the previously cited Kitamura patent, U.S. Patent No. 5,130,837, the applicant had previously argued that claims 5 and 6 (and 11 and 12) were patentable over these references. That is, the Kitamura patent does not teach, "the output terminal of the regeneration circuit (16, fig. 1) connected to the input terminal of the laser (LD, fig. 1 and col. 1, lines 58-61), the laser producing a light signal provided to a client layer (fig. 1)." As noted in the title of the cited patent, Kitamura *et al.* are concerned with optical repeaters and Fig. 1 illustrates a conventional optical repeater. Col. 1, lines 23-24. "[O]ptical repeaters are provided in an optical fiber cable at predetermined intervals so that the occurrence of a receipt error due to the length of the optical fiber cable can be prevented." Col. 1, lines 10-13. Optical repeaters should have no connections to a client layer in the Kitamura systems. A perusal of Fig. 1 shows that in fact the regeneration circuits 16, 18 and LDs 17,19 are connected "down the line," i.e., to the fiber cable, and not to a client layer as recited in claims 5 and 6. The Examiner appears to recognize the difference in the connections between a receiver transponder, as the applicant claims, and an optical repeater, as the Kitamura patent describes, in the self-contradictory quoted portions in the paragraph above.

First, Kitamura is claimed to teach that ““the output terminal of the regeneration circuit (16, fig. 1) connected to the input terminal of the laser (LD, fig. 1 and col. 1, lines 58-61), the laser producing a light signal provided to a client layer (fig. 1),” yet the last sentence of the paragraph states that “it would have been obvious... to incorporate the regeneration circuit 16 with the laser diode 17 of Kitamura having the input connecting to the output of the regeneration circuit into the combination of the Henmi and Yamane in order to provide the optical signals for transmission down the line (underlining added).” Even accepting the combination of the Kitamura patent with the Henmi and Yamane patents *arguendo*, it should be clear that the combination does not render claims 5 and 6 obvious. By the same arguments, neither should claims 11 and 12 be considered obvious.

Nonetheless, the Examiner has dismissed these arguments. “The applicant further argues that the combination of references fails to specifically teach producing a light signal provided to a client layer. However, this language is clearly met by the combination of references in that a light signal is produced via lasers 17 and used in an optical network which clearly includes clients and therefore includes, what the applicant generically refers to as a ‘client layer.’” The Examiner here refers to the Kitamura reference which describes optical repeaters which “are provided in an optical fiber cable at predetermined intervals so that the occurrence of a receipt error due the length of the optical fiber cable can be prevented.” Col. 1, ll. 10-13. As the name implies, such a device simply periodically regenerates the input optical signal. The Examiner has not explained why a client needs an optical repeater, such as shown in Fig. 2 of Kitagawa. The Examiner’s statements immediately above are conclusions and not explanations. The applicant points out that in MPEP §2143 the first basic requirement to establish a *prima facie* case of obviousness is that “there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.”

Hence dependent claims 5, 6, 11 and 12 are allowable in their own right.

Therefore, in view of the amendments above and the remarks directed thereto, the applicant respectfully requests that all rejections be withdrawn, that claims 1-12 be allowed and

the case be passed to issue. If a telephone conversation would in any way expedite the prosecution of this application, the Examiner is asked to call the undersigned at (408) 868-4088.

Respectfully submitted,

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